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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,830	01/31/2002	Jarno Marchetto	3282/0K042	4350

7590	04/05/2005

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EXAMINER
NGUYEN, TRONG NHAN P

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 January 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _31 January 2002_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _5/29/03_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claims 1-20 are being examined.

Drawings

The informal drawings are not of sufficient quality to permit examination.

Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are

required in reply to this Office action. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The present drawings appear to be facsimile copies of the original drawings

making the labels difficult to read and ascertain.

Applicant is given a TWO MONTH time period to submit new drawings in

compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions

of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in

ABANDONMENT of the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 11-14, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Joffe, 6,625,122 (Joffe hereafter).

As per claim 1, Joffe1 discloses (in prior art) a method of using the wait time ($t.sub.w$ or $t(w)$) between transmission of successive packets of known packet size (P) of a content to be transmitted to achieve a target bandwidth ($B.sub.T$ or $B(T)$) during the transmission (col. 1, lines 27-35; data packets are stored in a queue waiting to be released (or transmitted) during their allotted time slots by the system in accordance with pre-determined (or targeted) bandwidth parameters) comprising the steps of: selecting a target bandwidth ($B.sub.T$) sought to be achieved during the transmission (col. 1, lines 16-18; system scheduler schedules data packets for transmission in accordance with a pre-determined (or targeted) bandwidth parameters); computing a wait time ($t.sub.w$) between successive packets of the transmission using the algorithm $t(w) = P / B(T)$ (col. 1, lines 22-27 & 37-38; system allots time slots (thus packet wait time – or cell time; denoted by delta) for packets to be transmitted in accordance with the targeted bandwidth); and controlling the transmission of the packets using the wait time (col. 1, lines 30-34; packet scheduler allots time slots (or wait time) for data packets to be transmitted successively).

Claims 13 recite similar limitations as claim 1; therefore, it is rejected by similar rationale as claim 1.

As per claims 2-3, Joffe discloses the computed wait time t.sub.w that is used is rounded to a time unit and the rounding to the time unit is accomplished by a counter (col. 1, lines 56-57; time counter measures different time values to be used to determine wait times, current times, elapsed times, etc.).

As per claims 4 and 14, Joffe discloses determining the start (or time stamp) time t1 of transmission of a packet (col. 1, lines 57-59; time stamp (TS1 or start time) denotes the stamped time when the packet first enters the system); determining the end time t2 of transmission of the packet (col. 1, lines 59-61; end time is when the packet is transmitted – denoted by TS2 = TS1 + delta; delta is packet wait time in queue); and determining the time used t(used) in transmitting the packet as t2 - t1 (col. 1, lines 61-65; time used (or Q_Id) is the actual time it takes for the packet to be transmitted – from the time the packet first enters the system to the time the packet is transmitted out of the system; denoted by Q_Id = TS2 – TS1).

As per claims 11-12, Joffe discloses selecting the known packet size (P) of the packets to be transmitted, wherein the known packet size (P) is provided by an application (col. 1, lines 16-18; system selects (or schedules) packet data for transmission; packet data is inherently from an application or process waiting to be transmitted).

As per claims 19-20, Joffe discloses control means further comprises a counter that operates on a periodic basis to measure the wait time t.sub.w and compute wait time bases on other measured times (col. 1, lines 56-65; time counter time counter

measures different time values to be used to determine wait times, current times,

elapsed times, etc.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-8, 9-10, and 15-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Joffe.

As per claims 5-8, Joffe discloses determining the time used ($t.sub.used$ – also

denoted by Q_Id time) in the transmission of a packet; time stamp (TS1 or start time) of

the packet when it first enters the system (see claim 4 rejection); waiting time t between

the end of transmission of one packet to the start of transmission of the next packet (col.

1, lines 26-27; denoted by delta); time elapse 't(e)' as t(now) – t (start) (col. 1, lines 26-

27; the wait time (delta) of the packet is equivalent to the time elapse; t(now) as current

time minus start time (or TS1) yields time elapse or wait time). Joffe does not explicitly

disclose the residual time 't(r)' as t(used)-t(w) and comparing t(e) to t(r) and transmitting

the next packet when t(e) is greater than t(r). However, it would have been obvious to

one of ordinary skill in the art to modify the teachings of Joffe to compute additional cell

scheduling/processing times to better track the actual transmission rates and/or delay

times of the data packets in order to save costs and increase efficiencies.

As per claims 9-10, Joffe discloses the computed wait time t.sub.w that is used is

rounded to a time unit and the rounding to the time unit is accomplished by a counter

(col. 1, lines 56-57; time counter measures different time values to be used to determine

wait times, current times, elapsed times, etc.).

Claims 15-18 are recite similar limitations as claims 5-8; therefore, they are

rejected by similar rationale as claims 5-8.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Joffe et al, 6,041,059; Fan et al, 6,408,005 ; Prasad, 6,377,550 ; Caldara et al,

  5,982,771 ; Tanaka et al, 6,504,824 ; Chapman et al, US Pub 2003/0103450 ;

  Mogul, 6,560,243 ; Jandrell, 6,459,704

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jack P Nguyen whose telephone number is (571) 272-

3945. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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Dung C. Dinh
Primary Examiner